GOLDHORN

*Your listening experience is our priority.*




# Goldhorn Product Catalog

Goldhorn Electronics Co., Ltd (Fujian)
Address: Building 13, Haixi Hi-Tech Park, Fuzhou, Fujian, China
Phone: +86 0591-87010118
Website: www.goldhornaudio.com




## Step into the World of Goldhorn

As you open this Catalogue, you embark on a journey to discover Goldhorn's exceptional products—and more than that, you engage in a deeper conversation with our philosophy.

In the world of car audio upgrades, the development of head units represents a relentless pursuit of musical purity. With the rise of new energy vehicles introducing completely new electronic architectures, product R&D and system integration now face even higher technical demands.

Goldhorn has been deeply rooted in the audio industry for over two decades, backed by 15 years of expertise in information technology and 10 years of experience in automotive electronics—from home Hi-Fi systems to in-car digital audio, from traditional fuel vehicles to cutting-edge electric vehicles. Throughout this journey, we have remained steadfast in one mission: to let every note break through barriers of steel and code, resonating straight to the heart.

In 2016, Goldhorn pioneered the launch of the DSD digital player, ushering in a new era of high-fidelity car audio. In 2019, we independently developed a proprietary digital audio streaming chip and introduced the landmark high-end G Series head units. By 2024, responding to the rapidly evolving EV market, we unveiled the groundbreaking $A^2B$ DSP series—engineered specifically for new energy vehicles. Every leap in technology showcases not only our deep R&D strength, but also our determination to continually push boundaries.

Looking ahead, Goldhorn will remain committed to advancing audio technology, expanding our product portfolio, and delivering a purer, more emotionally engaging listening experience to car owners around the world—with professionalism, innovation, and passion.

**2004**

Goldhorn was founded in 2004.

**60+**

Goldhorn products are exported to over 50+ countries and regions.

**113+**

National patent applications.

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## Office Building




## Factory




## Corporate Honors and Patents



## Hi-Res DSD Player + DSP



P5 DSP Ultra



P2 DSP Pro V2.0



P1 DSP

## DSD Player + DSP Amplifier



P3 DSPA Plus



P2 DSPA Pro



P1 DSPA

## DSD Player Only



P3 Plus



P2 Pro



P1

## A²B DSP Amplifier



AB218



AB212

## DSP Amplifier



DSPA 2416 Ultra



DSPA 1616 Ultra



DSPA 1216 Plus



DSPA 1012 Plus

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## DSPA 810 Pro V2.0



## DSPA 810 SE V2.0



## DSPA 406 V2.0



## DSPA206



## Stand -alone DSP



DSP16 ULTRA



DSP10

## Goldhorn Speaker series



Celect TS1



Celect C1

## Accessories



T3002



GD16

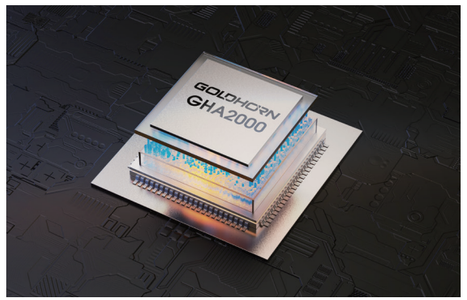


M02

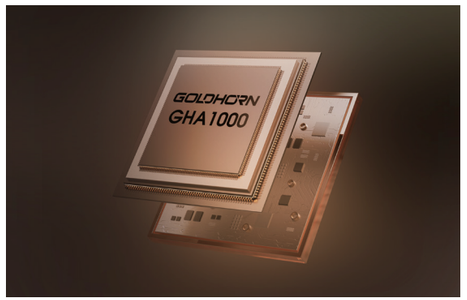
# Goldhorn Technology

## Goldhorn Originally Designes Chip

GHA2000 and GHA1000 are custom audio stream processing chips. It features a filtering chip designed to address defects such as "digital harshness" and impurities in digital sources. This chip has been fine-tuned in collaboration with the Goldhorn engineers, original manufacturer, and technology professors from universities. The meticulous design and integration of both hardware and software result in superior sound quality compared to similar products.




GHA2000




GHA1000

**Digital Audio Signal Input**

∨

**Oversampling & Reconstruction Module**
- GHA2000 & GHA1000 interpolation algorithm to expand sampling rate
- Digital signal reconstruction to reduce quantization error

∨

**Digital Filtering Module**
- GHA2000 & GHA1000 customized FIR filters
- Precisely remove high-frequency noise, suppress glitches, eliminate impurities, with Advanced Noise Shaping (ANS) technology

∨

**Jitter Correction & Clock Synchronization Module**
- Dual femtosecond clocks provide a stable timing reference
- Built-in clock synchronization and jitter correction algorithm in GHA2000 & GHA1000 eliminates clock jitter

∨

**Time Base Error Controlled at Femtosecond (fs) Level**
- Minimizes phase distortion during conversion, Reduces transmission delay

∨

**I²S Output**
- GHA2000 & GHA1000 reconstructs high-precision I²S clock + high-fidelity characteristic data
- Supports 768kHz PCM / 11.2896MHz DSD

∨

**Fully Unlocking the DAC Chip's Conversion Capability**
- Significantly improves dynamic range
- Delivers a more delicate and smooth listening experience

∨

**High-Quality Analog Audio Output — Effectively Eliminating Digital Harshness**

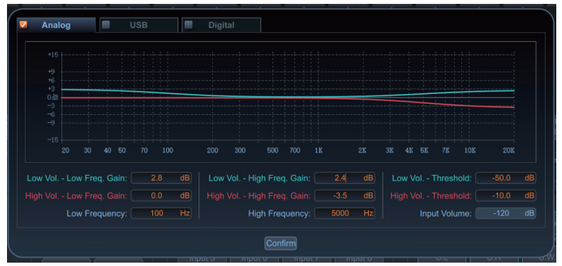
## SKYATOM Surround System

As Goldhorn' s independently developed surround sound system, SKYATOM is designed specifically for vehicles equipped with complex multi-channel audio systems. Unlike traditional DSPs that rely on delay synthesis to simulate the center channel, SKYATOM employs advanced algorithms to deeply analyze and optimize audio signals, accurately simulating the positioning of center and surround speakers. This delivers a more realistic and immersive in-car Hi-Fi stereo and virtual surround sound listening experience.




## Dynamic Loudness Control (DLC)

Goldhorn DSP, through its Dynamic Loudness Control (DLC) function, detects the signal and processes dynamic results to compensate for noise dynamics and enhance high-frequency detail. This enables a listening experience with powerful dynamics at low volume and non-harsh sound at high volume.




## AB218 Compatible Models

BYD Dynaudio System: Denza D9 / Han / Tang / Seal / Sealion
BYD Devialet System: Denza D9 2025 / Denza Z9GT / Denza N9
BYD Fangchengbao Leopard 5 / Leopard 8 / Tai 3
Li Auto L6 / L7 / L8 / L9 / MEGA
AITO M5 / M5 Ultra-2025 / M7 / M8 / M9 / STELATO S9 / Luxeed R7 / Luxeed S7
NIO (NT2.0 Platform) ET5 / ET7 / ES6 / ES8 / EC6 / EC7
Xpeng G9 / X9 / G6 / P7+
Avatr 11 - 2023 (Pioneer Audio) / Avatr 12 - 2023 (Pioneer Audio)
GWM Tank 300 / Tank 400-Hi4T / Tank 500-Hi4T / Tank 500-Hi4Z
GWM WEY 07 - 2025 / GWM WEY 80 - 2025
GWM Haval Raptor / Haval Fierce Dragon - 2025
Changan Deepal S7 / S07 / G318 / SL03
GAC Trumpchi M8 / E9、GAC Hyper HT
Voyah Dreamer 2024 (Dynaudio System) / Voyah Dreamer 2025
Zeekr 001 2023 (8ch Yamaha Amp)
Lynk & Co 08-EMP / Lynk & Co Z10
BAIC BJ40

## AB212 Compatible Models

BYD Dynaudio System (external amplifier required):
Denza D9 / Han / Tang / Seal
GWM Tank 300, Tank 400-Hi4T, Tank 500-Hi4T,
Tank 500-Hi4Z,
GAC Trumpchi M8 / E9 ,
Avatr 11 - 2023(Pioneer Audio) ,
GWM Haval Raptor / Haval Fierce Dragon - 2025
Changan Deepal S7 / S07 / SL03,
Voyah Dreamer 2024(Dynaudio System)
Zeekr 001 2023(8ch Yamaha Amp)
BAIC BJ40

Note: Since the list of compatible vehicles may be updated with additions or removals based on R&D progress and version upgrades, the actual compatibility is subject to the latest information officially released by Goldhorn.

## Salzburg EMMA European Finals 2024



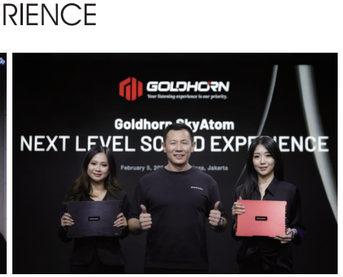

## Goldhorn Asia-pacisic Distributor Conference




## Indonesia-Goldhorn SKYATOM NEXT LEVEL SOUND EXPERIENCE








## Russia & India Distributors Training Conference

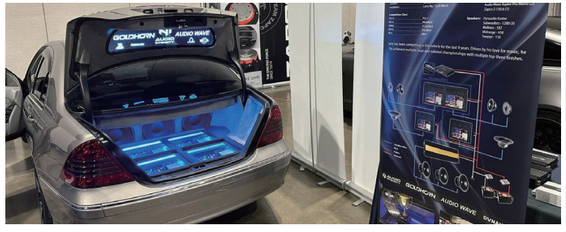



## Peru & Colombia Distributors Training Conference






## Goldhorn @ Chicago AXPONA 2025 HiFi Show





## Indonesia EMMA Asia Finals 2024







## Delegation of Distributors from Malaysia, Singapore, and Taiwan





## Japan Sendai & Kanazawa Custom Car Show






## Delegation of Distributors from Malaysia, Thailand, Indonesia, and Taiwan





PLAYER DSP

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# Hi-Res DSD Player + DSP - P5 DSP Ultra

Flagship all-in-one DSD player with ES9038Pro DAC, triple femtosecond clocks, and 12 billion operations per second. Features 16 audio channels, designed for audiophile systems. Widely awarded and recognized in major international and domestic competitions.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-on | ACC / high level inputs |
| Hi-End components | 3 x ADAU1463 DSP Chips,192KHz Sampling Rate<br>2 x ES9038Pro DAC Chips (32bit/768KHz PCM)<br>2 x AK5558VN ADC Chips (32bit/768KHz PCM)<br>Goldhorn Originally Designed Chip GHA2000<br>3 x Femtosecond Clock Generators<br>4 x ARM Cortex A7 cores<br>Hi-End Proprietary OpAmp<br>Customized Operating System<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Music Formats | Hi-res: DFF/DSF<br>Uncompressed: WAV/FLAC/APE/AIFF<br>Compressed: MP3/AAC/OGG/WMA/MV |
| Sampling Rate | PCM: 44.1KHz~768KHz/16~32bit<br>DSD: DSD64/DSD128/DSD256 |
| Inputs | 16 x High Level Inputs 16Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>1 x USB-DAC(USB-OTG) Input (up to192KHz/32bit)<br>1 x Optical Input / 1 x Coaxial Input (up to192KHz/24bit) |
| *Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/Slope 1&2 AP<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| *Input Delay | High level input time delay adjustment:<br>0~10ms/0~340cm, Step 0.005ms |
| SKYATOM Surround | 6-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms,<br>Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |

*Please note that after upgrading the SKYATOM version , the Input EQ function will be canceled.

| | |
|---|---|
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX/aptX HD/AAC/SBC |
| Dynamic Loudness Control | Separate DLC parameters for Analog/Digital/ Bluetooth input sources |
| Outputs | 16 x RCA Outputs 11.2Vp-p(4Vrms)/47KΩ |
| Frequency Response | 10Hz~80KHz(±1dB) |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/Slope 1&2 AP<br>30-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360°(step 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel:<br>0~20ms/0~680cm, Step 0.005ms |
| Output Volume | Independently adjustable per channel: -20dB~+5dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Wi-Fi Standard | 802.11b/g/n |
| USB Terminals | USB2.0 HOST x 3<br>Type-B USB x 1<br>USB-DAC(USB-OTG) x 1 |
| Intelligent Control | Panel control with IPS display;<br>2.4GHz wireless digital remote control;<br>Mobile App Control;<br>Steering wheel control (for limited car make only) |
| PC Tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 303mm x 231mm x 50mm |
| Weight | 7.32kg |
| Operating temperature | -20°C~70°C |
| Storage temperature | -30°C~85°C |
| Maximum Humidity | -90%RH |

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DSP PLAYER

# Hi-Res DSD Player + DSP - P2 DSP Pro V2.0

Adopts the same integrated source and decoding design as the flagship P5 DSP Ultra, eliminating signal loss from separated designs. Provides 12 RCA outputs for pairing with pure amplifiers, enabling the creation of competition-grade audiophile audio systems.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | ADAU1463 ADI DSP Chip<br>2 x ES9840Q ADC Chips<br>6 x ES9038Q2M DAC Chips<br>3 x femtosecond clock generators<br>Goldhorn originally designed chip GHA1000<br>Customized operating system<br>Texas Instruments OPA1612 Operation Amp<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Music Formats | Hi-res: DFF/DSF<br>uncompressed: WAV/FLAC/APE/AIFF<br>compressed: MP3/AAC/OGG/WMA/MV |
| Sampling rate | PCM: 44.1KHz~768KHz/16~32bit<br>DSD: DSD64/DSD128/DSD256 |
| Inputs | 8 x High Level Inputs 16Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>1 x Optical Input(up to192KHz/24bit)<br>Input Impedance: 6Ω |
| Outputs | 12 x RCA Outputs 11.2Vp-p(4Vrms)47KΩ<br>1 x CVBS video output (NTSC) |
| THD + N | < 0.0003% |
| S/N | > 121dB |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/Slope 1&2 AP<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Input Delay | High level input time delay adjustment:<br>0~10ms/0~340cm, 0.01 ms Steps |
| Dynamic Loudness Control | Separate DLC parameters for Analog/Digital/ Bluetooth input sources |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |

| | |
|---|---|
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/Slope 1&2 AP<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Frequency Response | 20Hz~40KHz |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360°(step 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel:<br>0~20ms/0~680cm, 0.01 ms Steps |
| Output Volume | Independently adjustable per channel: -20dB~+5dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Source Selection | Mix mode |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX HD/aptX/AAC/SBC |
| Intelligent Control | Panel control with IPS display;<br>2.4GHz wireless digital remote control;<br>Mobile App Control;<br>Steering wheel control (for limited car make only) |
| Wi-Fi Standard | 802.11b/g/n |
| USB Terminals | USB2.0 HOST x 4<br>USB type B for PC software x 1 |
| Extend | Steering wheel controller terminal x 1 |
| Dimensions | 241mm x 180mm x 50mm |
| Weight | 3.56kg |
| Operating temperature | -20°C~70°C |
| Storage temperature | -30°C~85°C |
| Maximum Humidity | -90%RH |

PLAYER DSP

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# Hi-Res DSD Player - P1 DSP

The P1 DSP adopts an integrated design of head unit and decoder to avoid transmission loss. It supports multiple inputs including 4-channel high-level, 1 optical, and 1 OTG, with 8 RCA outputs for easy pairing with pure amplifiers. Combined with dynamic loudness and sky surround sound, it delivers a competition-grade hi-fi audio system.





## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-on | ACC / high level inputs |
| Hi-End components | ADAU1452 ADI DSP Chip<br>AK5704 ADC Chip (192KHz/24bit)<br>AK4438 DAC Chip (768KHz/32bit)<br>NJM4580 & NJM5532 Op Amp<br>4 x ARM Cortex A7 cores<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Inputs | 4 x High Level Inputs 10Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>1 x Optical Input(192KHz/24bit)<br>1 x USB-DAC(USB-OTG) Input (192KHz/32bit)<br>Input Impedance: 6Ω |
| Outputs | 8 x RCA Outputs 11.2Vp-p(4Vrms)/47KΩ |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX HD/aptX/AAC/SBC |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/Slope 1&2 AP<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Input Delay | High level input time delay adjustment:<br>0~10ms/0~340cm |
| Dynamic Loudness Control | Separate DLC parameters for Analog/Digital/ Bluetooth input sources |
| SKYATOM Surround | 6-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms, Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |
| Music Formats | Hi-res: DFF/DSF<br>uncompressed: WAV/FLAC/APE/AIFF<br>compressed: MP3/AAC/OGG/WMA/MV |
| Sampling Rate | PCM: 44.1KHz~768KHz/16~32bit<br>DSD: DSD64/DSD128/DSD256 |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/Slope 1&2 AP<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360°(step 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel:<br>0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~+5dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Intelligent Control | Panel control with IPS display;<br>2.4GHz wireless digital remote control;<br>Mobile App Control;<br>Steering wheel control (for limited car make only) |
| Wi-Fi Standard | 802.11b/g/n |
| USB Terminals | USB2.0 HOST x 2<br>USB type B for PC software x 1<br>USB-DAC(USB-OTG) x 1 |
| Extend | Steering wheel controller terminal x 1 |
| Dimensions | 193mm x 145.5mm x 40mm |
| Weight | 1.10kg |
| Operating temperature | -20˚C~70˚C |
| Storage temperature | -30˚C~85˚C |
| Maximum Humidity | -90%RH |

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AMP DSP PLAYER

# DSD Player + DSP Amplifier - P3 DSPA Plus

An integrated system combining DSP, professional amplifier, and DSD player. Supports USB playback, OTG lossless playback, Bluetooth, and automatic input switching. Offers 10 high-level and 10 RCA outputs (total 20 channels), strong expandability, and OEM steering wheel control. One of the most compatible and fully featured head units available domestically and internationally.





## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | ADAU1463 ADI DSP Chip<br>3 x PCM1840 ADC Chips (192KHz/32bit)<br>2 x PCM1690 DAC Chips (192KHz/24bit)<br>MC33078 Op Amp<br>4 x ARM Cortex A7 cores<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Music Formats | Hi-res: DFF/DSF<br>Uncompressed: WAV/FLAC/APE/AIFF<br>Compressed: MP3/AAC/OGG/WMA/MV |
| Sampling rate | PCM: 44.1KHz~768KHz/16~32bit<br>DSD: DSD64/DSD128/DSD256 |
| Inputs | 12 x High Level Inputs 16Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>1 x USB-DAC(USB-OTG) Input (up to 192KHz/32bit)<br>Input Impedance: 6Ω |
| High Level Outputs | 10 x High Level Outputs<br>8ch: 50W/4Ω/ch RMS, 80W/4Ω/ch Max.<br>2ch: 100W/4Ω/ch RMS, 150W/4Ω/ch Max.<br>1 x BLT outputs<br>200W/4Ω/ch RMS, 300W/4Ω/ch Max. |
| RCA Outputs | 12 x RCA Outputs 16Vp-p(5.6Vrms)/47KΩ |
| DSP Outputs | 20 x DSP Outputs: 10 x high-level + 10 x RCA<br>(2 RCA channels shared for high level and RCA ) |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX/AAC/SBC |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/Slope 1&2 AP<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Input Delay | High level input time delay adjustment:<br>0~10ms/0~340cm |
| Dynamic Loudness Control | Separate DLC parameters for Analog/ Bluetooth input sources |
| Equalizer Control Mode | Relative/Absolute/No |
| SKYATOM Surround | 6-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms, Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/Slope 1&2 AP<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Output Phase | Variable Phase Rotation from 0° to 360°(step 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel:<br>0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~+5dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Intelligent Control | Panel control with IPS display;<br>2.4GHz wireless digital remote control;<br>Mobile App Control;<br>Steering wheel control(for limited car make only) |
| Wi-Fi Standard | 802.11b/g/n |
| USB Terminals | USB2.0 HOST x 3<br>USB-DAC(USB-OTG) x 1<br>USB type B for PC software x 1 |
| Extend | Steering wheel controller terminal x 1 |
| Dimensions | 296mm x 217mm x 43mm |
| Weight | 4.28kg |
| Operating temperature | -20˚C~70˚C |
| Storage temperature | -30˚C~85˚C |
| Maximum Humidity | -90%RH |

PLAYER DSP AMP

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# DSD Player + DSP Amplifier - P2 DSPA Pro

A high-value solution for OEM multi-channel systems. Features 8 high-level and 8 RCA outputs (total 16 channels), supporting external amplifiers and activation of original 16-speaker systems. Compatible with models like Avancier, UR-V, Lexus, Land Cruiser, and Prado. Supports OEM steering wheel control to enhance the overall audio experience.





## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | ADAU1452 ADI DSP Chip<br>2 x PCM1840 ADC Chips (192KHz/32bit)<br>PCM1690 DAC Chip (192KHz/24bit)<br>NJM4580 & MC33078 Op Amp<br>4 x ARM Cortex A7 cores<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Music Formats | Hi-res: DFF/DSF<br>uncompressed: WAV/FLAC/APE/AIFF<br>compressed: MP3/AAC/OGG/WMA/MV |
| Sampling rate | PCM: 44.1KHz~768KHz/16~32bit<br>DSD: DSD64/DSD128/DSD256 |
| Inputs | 8 x High Level Inputs 16Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>Input Impedance: 6Ω |
| Outputs | 8 x High Level Outputs<br>50W/4Ω/ch RMS, 80W/4Ω/ch Max.<br>8 x RCA Outputs 16Vp-p(5.6Vrms)/47KΩ<br>1 x CVBS video output (NTSC)<br>16 - channel DSP Outputs,<br>8 x RCA + 8 x High Level Outputs |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX/AAC/SBC |
| Dynamic Loudness Control | Separate DLC parameters for Analog/ Bluetooth input sources |
| SKYATOM Surround | 6-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms,<br>Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/Slope 1&2 AP<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Input Delay | High level input time delay adjustment:<br>0~10ms/0~340cm |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/Slope 1&2 AP<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360°(step 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel:<br>0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~+5dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Intelligent Control | Panel control with IPS display;<br>2.4GHz wireless digital remote control;<br>Mobile App Control;<br>Steering wheel control (for limited car make only) |
| Wi-Fi Standard | 802.11b/g/n |
| USB Terminals | USB2.0 HOST x 3<br>USB type B for PC software x 1 |
| Extend | Steering wheel controller terminal x 1 |
| Dimensions | 217mm x 170mm x 43mm |
| Weight | 2.72kg |
| Operating temperature | -20°C~70°C |
| Storage temperature | -30°C~85°C |
| Maximum Humidity | -90%RH |

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AMP DSP PLAYER

# DSD Player + DSP Amplifier - P1 DSPA

An entry-level upgrade solution designed for new audio enthusiasts. Combines DSD player, 4-channel amplifier, and 10-channel DSP. Supports full-format decoding, ideal for active two-way systems, offering an affordable, high-performance sound upgrade.





## Technical Specifications

| | |
|---|---|
| Voltage | 11-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | ADAU1452 ADI DSP Chip<br>2 x PCM1862 ADC Chips (192KHz/24bit)<br>PCM1690 DAC Chip (192KHz/24bit)<br>NJM4580 & MC33078 Op Amp<br>4 x ARM Cortex A7 cores<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Music Formats | Hi-res: DFF/DSF<br>uncompressed: WAV/FLAC/APE/AIFF<br>compressed: MP3/AAC/OGG/WMA/MV |
| Sampling rate | PCM: 44.1KHz~768KHz/16~32bit<br>DSD: DSD64/DSD128/DSD256 |
| Inputs | 4 x High Level Inputs 10Vrms Max.<br>2 x RCA Inputs 3.2Vrms Max.<br>Input Impedance: 6Ω |
| Outputs | 4 x High Level Outputs<br>30W/4Ω/ch RMS, 65W/4Ω/ch Max.<br>6 x RCA Outputs 16Vp-p(5.6Vrms)/47KΩ<br>1 x CVBS video output (NTSC) |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX/AAC/SBC |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/Slope 1&2 AP<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Input Delay | High level input time delay adjustment:<br>0~10ms/0~340cm |
| Dynamic Loudness Control | Separate DLC parameters for Analog/ Bluetooth input sources |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/Slope 1&2 AP<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360°(step 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel:<br>0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~+5dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Intelligent Control | Panel control with IPS display;<br>2.4GHz wireless digital remote control;<br>Mobile App Control;<br>Steering wheel control (for limited car make only) |
| Wi-Fi Standard | 802.11b/g/n |
| USB Terminals | USB2.0 HOST x 2<br>USB type B for PC software x 1 |
| Extend | Steering wheel controller terminal x 1 |
| Dimensions | 180mm x 140.5mm x 36mm |
| Weight | 2.29kg |
| Operating temperature | -20°C~70°C |
| Storage temperature | -30°C~85°C |
| Maximum Humidity | -90%RH |

# DSD Player Only - P3 Plus

A high-end pure audio source DSD player featuring the ES9028Pro DAC chip, fully supporting a wide range of audio format decoding. Offers optical and coaxial outputs for seamless integration with high-end DSPs and amplifiers. Supports OEM steering wheel control, making it an ideal choice for car owners pursuing premium sound quality.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC |
| Hi-End components | Goldhorn originally designed chip GHA1000<br>1 x ES 9028Pro DAC Chip (32bit/768KHz PCM)<br>3 x femtosecond clock generators<br>Customized operating system<br>Texas Instruments OPA1612 Operation Amp<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps<br>4 x ARM Cortex A7 cores |
| Music Formats | Hi-res: DFF/DSF<br>uncompressed: WAV/FLAC/APE/AIFF<br>compressed: MP3/AAC/OGG/WMA/MV |
| Sampling rate | PCM: 44.1KHz~768KHz/16~32bit<br>DSD: DSD64/DSD128/DSD256 |
| Inputs | 4 x High Level Inputs 10Vrms Max.<br>Input Impedance: 6Ω |
| Outputs | 2x RCA Outputs 11.2Vp-p(4Vrms)/47KΩ<br>1 x Optical Output / 1 x Coaxial Output<br>(up to192KHz/24bit)<br>1 x CVBS video output (NTSC) |

| | |
|---|---|
| THD+N | <0.00017%,@1KHz |
| S/N | <-125dB |
| Source Selection | Factory unit/AUX/player/Auto/Bluetooth® 5.0 |
| Intelligent Control | Panel control with IPS display;<br>2.4GHz wireless digital remote control;<br>Mobile App Control;<br>Steering wheel control (for limited car make only) |
| Wi-Fi Standard | 802.11b/g/n |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX HD/aptX/AAC/SBC |
| USB Terminals | USB2.0 HOST x 3 |
| Extend | Steering wheel controller terminal x 1 |
| Dimensions | 217mm x 170mm x 43mm |
| Weight | 2.10kg |
| Operating temperature | -20°C~70°C |
| Storage temperature | -30°C~85°C |
| Maximum Humidity | -90%RH |



# DSD Player Only - P2 Pro

Supports full-format audio decoding and offers optical and coaxial outputs. Designed for pairing with professional DSPs and amplifiers, with support for OEM steering wheel control, making it perfect for audio enthusiasts aiming to build a high-quality source system.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC |
| Hi-End components | Goldhorn originally designed chip GHA1000<br>2 x AK4493 DAC Chips (32bit/768KHz PCM)<br>2 x femtosecond clock generators<br>Customized operating system<br>Texas Instruments OPA2604 Operation Amp<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps<br>4 x ARM Cortex A7 cores |
| Music Formats | Hi-res: DFF/DSF<br>uncompressed: WAV/FLAC/APE/AIFF<br>compressed: MP3/AAC/OGG/WMA/MV |
| Sampling rate | PCM: 44.1KHz~768KHz/16~32bit<br>DSD: DSD64/DSD128/DSD256 |
| Inputs | 4 x High Level Inputs 10Vrms Max.<br>2 x RCA Inputs 1.2Vrms Max.<br>Input Impedance: 6Ω |
| Outputs | 6x RCA Outputs 11.2Vp-p(4Vrms)/47KΩ<br>1 x Optical Output / 1 x Coaxial Output<br>(up to192KHz/24bit)<br>1 x CVBS video output (NTSC) |

| | |
|---|---|
| Source Selection | Factory unit/AUX/player/Auto/Bluetooth® 5.0 |
| Intelligent Control | Panel control with IPS display;<br>2.4GHz wireless digital remote control;<br>Mobile App Control;<br>Steering wheel control (for limited car make only) |
| Wi-Fi Standard | 802.11b/g/n |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX/aptX HD/AAC/SBC |
| USB Terminals | USB2.0 HOST x 3 |
| Extend | Steering wheel controller terminal x 1 |
| Dimensions | 194mm x 145.6mm x 40.5mm |
| Weight | 2.20kg |
| Operating temperature | -20°C~70°C |
| Storage temperature | -30°C~85°C |
| Maximum Humidity | -90%RH |

PLAYER

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# DSD Player Only - P1

An entry-level pure source head unit supporting optical/coaxial output to DSPs and amplifiers. Fully compatible with all audio formats and OEM steering wheel controls, providing a simple and efficient solution for beginner car audio upgrades.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | AK4490 DAC Chip (32bit/768KHz PCM)<br>Texas Instruments OPA2604 Operation Amp<br>1 x Femtosecond Clock Generators<br>4 x ARM Cortex A7 cores<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Music Formats | Hi-res: DFF/DSF<br>uncompressed: WAV/FLAC/APE/AIFF<br>compressed: MP3/AAC/OGG/WMA/MV |
| Sampling rate | PCM: 44.1KHz~768KHz/16~32bit<br>DSD: DSD64/DSD128/DSD256 |
| Inputs | 4 x High Level Inputs 10Vrms Max.<br>2 x RCA Inputs 1.7Vrms Max.<br>Input Impedance: 6Ω |
| Outputs | 1 x Optical Output / 1 x Coaxial Output (up to192KHz/24bit)<br>2 x RCA Outputs 5.6Vp-p(2Vrms)/47KΩ<br>1 x CVBS video output (NTSC) |

| | |
|---|---|
| Source Selection | factory unit/AUX/Player/Auto/Bluetooth® 5.0 |
| Intelligent Control | Panel control with IPS display;<br>2.4GHz wireless digital remote control;<br>Mobile App Control;<br>Steering wheel control (for limited car make only) |
| Wi-Fi Standard | 802.11b/g/n |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX/AAC/SBC |
| USB Terminals | USB2.0 HOST x 2 |
| Extend | Steering wheel controller terminal x 1 |
| Dimensions | 180mm x 140.5mm x 36mm |
| Weight | 2.04kg |
| Operating temperature | -20˚C~70˚C |
| Storage temperature | -30˚C~85˚C |
| Maximum Humidity | -90%RH |

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AMP DSP

# A²B DSP Amplifier - AB218

A dedicated solution developed for mainstream new energy vehicles, featuring vehicle-specific, plug-and-play installation. Supports A²B input, Fully compatible with popular EV models such as AITO, Li Auto, and XPeng. Extracts pre-amp signals from the original amplifier, adapts to OTA updates, and retains active noise cancellation without removing the original microphones. Outstanding performance, highly recommended.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | A²B Signal Activation |
| Hi-End components | 2 x ADAU1463 ADI DSP Chips<br>4 x PCM1840 ADC Chips (192KHz/32bit)<br>2 x AK4458VN DAC Chips (768KHz/32bit)<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Inputs | A²B Input<br>2 x RCA Inputs 3Vrms Max.<br>1 x Optical Input / 1 x Coaxial Input (up to 192KHz/24bit)<br>1 x USB-DAC(USB-OTG) Input (up to 192KHz/32bit) |
| High Level Outputs | 20 x High Level Outputs<br>12ch: 50W/4Ω/ch RMS, 80W/4Ω/ch Max.<br>4ch: 100W/4Ω/ch RMS, 150W/4Ω/ch Max.<br>2 x BLT outputs<br>200W/4Ω/ch RMS, 300W/4Ω/ch Max.<br>THD+N: <0.017% S/N: >100 dB |
| RCA Outputs | 16 x RCA Outputs<br>Voltage: 5.6Vrms<br>THD+N: <0.0017% S/N: >108 dB |
| DSP Outputs | 28 x DSP channels: 20 x high-level +8 x RCA (8 RCA shared high-level/RCA.) |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AWRCP<br>Audio Codec: aptX/aptX HD/AAC/SBC |
| Dynamic Loudness Control | Separate DLC parameters for Analog/Digital/ Bluetooth input sources |
| SKYATOM Surround | 8-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms<br>Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |

| | |
|---|---|
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Frequency Response | 20Hz ~ 40KHz |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360° (step: 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel : 0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~0dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Rename | Speakers can be renamed individually for each channel |
| Controller | Mode Selection / volume control / Bass control |
| PC tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 331mm x 217mm x 43mm |
| Weight | 5.08kg |
| Operating temperature | -20˚C~70˚C |
| Storage temperature | -30˚C~85˚C |
| Maximum Humidity | -90%RH |

DSP AMP

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# A²B DSP Amplifier - AB212

A solution specifically developed for dozens of popular new energy vehicle models, including Tank and BYD. It supports A²B input, extracts the OEM amplifier's pre-stage signal, adapts to OEM OTA updates, and retains active noise cancellation without removing the factory microphones. With outstanding performance, it is highly recommended.





## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | A²B Signal Activation |
| Hi-End components | ADAU1463 ADI DSP Chip<br>4 x PCM1840 ADC Chips (192KHz/32bit)<br>2 x AK4458VN DAC Chips (768KHz/32bit)<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Inputs | A²B Input<br>2 x RCA Inputs 3Vrms Max.<br>1 x Optical Input / 1 x Coaxial Input (up to 192KHz/24bit)<br>1 x USB-DAC(USB-OTG) Input (up to 192KHz/32bit) |
| High Level Outputs | 12 x High Level Outputs<br>8ch: 50W/4Ω/ch RMS, 80W/4Ω/ch Max.<br>4ch: 100W/4Ω/ch RMS, 150W/4Ω/ch Max.<br>2 x BLT outputs<br>200W/4Ω/ch RMS, 300W/4Ω/ch Max.<br>THD+N: <0.017% S/N: >100 dB |
| RCA Outputs | 12 x RCA Outputs<br>Voltage: 5.6Vrms<br>THD+N: <0.0017% S/N: >108 dB |
| DSP Outputs | 20 x DSP channels: 12 x high-level +8 x RCA (4 RCA shared high-level/RCA.) |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| SKYATOM Surround | 8-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms<br>Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AWRCP<br>Audio Codec: aptX/aptX HD/AAC/SBC |
| Dynamic Loudness Control | Separate DLC parameters for Analog/Digital/ Bluetooth input sources |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Frequency Response | 20Hz ~ 40KHz |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360° (step: 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel : 0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~0dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Rename | Speakers can be renamed individually for each channel |
| Controller | Mode Selection / volume control / Bass control |
| PC tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 331mm x 217mm x 43mm |
| Weight | 4.30kg |
| Operating temperature | -20°C~70°C |
| Storage temperature | -30°C~85°C |
| Maximum Humidity | -90%RH |

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AMP DSP

# DSP Amplifier - DSPA 2416 Ultra

Designed and developed for vehicles with multi-channel audio systems, equipped with a built-in Goldhorn SKYATOM. It delivers a maximum power output of 20 × 80W/4 + 4 × 150W/4 , and comes with 16 RCA outputs. It is compatible with BBA, Land Rover, new energy vehicles with more than 20 channels, as well as standard vehicles.





## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | 2 x ADAU1463 ADI DSP Chips<br>3 x AK5558 ADC Chips (768KHz/32bit)<br>2 x AK4458VN DAC Chips (768KHz/32bit)<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Inputs | 24 x High Level Inputs 10/16Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>1 x Optical Input / 1 x Coaxial Input (up to 192KHz/24bit)<br>1 x USB-DAC(USB-OTG) Input (up to 192KHz/32bit)<br>Input Impedance: 6Ω |
| High Level Outputs | 24 x High Level Outputs<br>20ch: 50W/4Ω/ch RMS, 80W/4Ω/ch Max.<br>4ch: 100W/4Ω/ch RMS, 150W/4Ω/ch Max.<br>2 x BLT outputs<br>200W/4Ω/ch RMS, 300W/4Ω/ch Max.<br>THD+N< 0.017% S/N> 100dB |
| RCA Outputs | 16 x RCA Outputs<br>Voltage : 5.6Vrms<br>THD+N: <0.0017% S/N: >108 dB |
| DSP Outputs | 36 x DSP channels: 24 x high-level +12 x RCA (8 RCA shared high-level/RCA.) |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AWRCP<br>Audio Codec: aptX/aptX HD/AAC/SBC |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Dynamic Loudness Control | Separate DLC parameters for Analog/Digital/ Bluetooth input sources |
| SKYATOM Surround | 6-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms,<br>Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Frequency Response | 20Hz ~ 40KHz |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360° (step: 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel : 0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~0dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Rename | Speakers can be renamed individually for each channel |
| Controller | Mode Selection / volume control / Bass control |
| PC tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 410mm x 217mm x 46mm |
| Weight | 6.6kg |
| Operating temperature | -20°C~70°C |
| Storage temperature | -30°C~85°C |
| Maximum Humidity | -90%RH |

DSP AMP

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# DSP Amplifier - DSPA 1616 Ultra

Designed and developed for vehicles with multi-channel audio systems, equipped with a built-in Goldhorn SKYATOM. It delivers a maximum power output of 12 × 80W/4Ω + 4 × 150W/4Ω, together with 16 RCA outputs. It supports activation of 16 original car channels and is compatible with BBA, Land Rover, new energy vehicles with more than 20 channels, as well as standard vehicles.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | ADAU1463 ADI DSP Chip<br>4 x PCM1840 ADC Chips (192KHz/32bit)<br>2 x AK4458VN DAC Chips (768KHz/32bit)<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Inputs | 16 x High Level Inputs 10/16Vrms Max.<br>2 x AUX Inputs 3Vrms Max.<br>1 x Optical Input / 1 x Coaxial Input (up to 192KHz/24bit)<br>1 x USB-DAC(USB-OTG) Input (up to 192KHz/32bit)<br>Input Impedance: 6Ω |
| High Level Outputs | 16 x High Level Outputs<br>12ch: 50W/4Ω/ch RMS, 80W/4Ω/ch Max.<br>4ch: 100W/4Ω/ch RMS, 150W/4Ω/ch Max.<br>2 x BLT outputs<br>200W/4Ω/ch RMS, 300W/4Ω/ch Max.<br>THD+N: <0.017% S/N: >100 dB |
| RCA Outputs | 16 x RCA Outputs<br>Voltage: 5.6Vrms<br>THD+N: <0.0017% S/N: >108 dB |
| DSP Outputs | 24 x DSP channels: 16 x high-level + 8 x RCA ( 8 RCA shared high-level/RCA.) |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| SKYATOM Surround | 6-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms, Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AWRCP<br>Audio Codec: aptX/aptX HD/AAC/SBC |
| Dynamic Loudness Control | Separate DLc parameters for Analog/Digital/ Bluetooth input sources |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Frequency Response | 20Hz ~ 40KHz |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360° (step: 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel: 0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~0dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Rename | Speakers can be renamed individually for each channel |
| Controller | Mode Selection / volume control / Bass control |
| PC tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 331mm x 217mm x 43mm |
| Weight | 5.08kg |
| Operating temperature | -20˚C~70˚C |
| Storage temperature | -30˚C~85˚C |
| Maximum Humidity | -90%RH |

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AMP DSP

# DSP Amplifier - DSPA 1216 Plus

Specialized for multi-channel luxury and EV systems, featuring built-in Goldhorn SKYATOM. Provides 8×80W/4 + 4×150W/4 Max. power output with 16 RCA outputs, supporting full activation of 16 original channels to create a Hi-Fi + 7.1 surround sound experience.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | ADAU1463 ADI DSP Chip<br>4 x PCM1840 ADC Chips (192KHz/32bit)<br>2 x AK4458VN DAC Chips (768KHz/32bit)<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Inputs | 16 x High Level Inputs 10/16Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>1 x Optical Input / 1 x Coaxial Input (up to 192KHz/24bit)<br>1 x USB-DAC(USB-OTG) Input (up to 192KHz/32bit)<br>Input Impedance: 6Ω |
| High Level Outputs | 12 x High Level Outputs<br>8ch: 50W/4Ω/ch RMS, 80W/4Ω/ch Max.<br>4ch: 100W/4Ω/ch RMS, 150W/4Ω/ch Max.<br>2 x BLT outputs<br>200W/4Ω/ch RMS, 300W/4Ω/ch Max.<br>THD+N: <0.017% S/N: >100 dB |
| RCA Outputs | 16 x RCA Outputs<br>Voltage: 5.6Vrms<br>THD+N: <0.0017% S/N: >108dB |
| DSP Outputs | 24 x DSP channels: 12 x high-level + 12 x RCA ( 4 RCA shared high-level/RCA.) |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AWRCP<br>Audio Codec: aptX/aptX HD/AAC/SBC |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Dynamic Loudness Control | Separate DLc parameters for Analog/Digital/ Bluetooth input sources |
| SKYATOM Surround | 6-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms, Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Frequency Response | 20Hz ~ 40KHz |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360° (step: 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel: 0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~0dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Rename | Speakers can be renamed individually for each channel |
| Controller | Mode Selection / volume control / Bass control |
| PC tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 331mm x 217mm x 43mm |
| Weight | 4.5kg |
| Operating temperature | -20˚C~70˚C |
| Storage temperature | -30˚C~85˚C |
| Maximum Humidity | -90%RH |

DSP AMP

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# DSP Amplifier - DSPA 1012 Plus

Tailored for OEM multi-channel upgrade solutions, offering 8×80W/4Ω + 2×150W/4Ω Max. power output and 12 RCA outputs. Supports activating 12 original vehicle channels, enhancing sound quality across various vehicle types.





## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | ADAU1463 ADI DSP Chip<br>3 x PCM1840 ADC Chips (192KHz/32bit)<br>2 x PCM1690 DAC Chips (192KHz/24bit)<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Inputs | 12 x High Level Inputs 16Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>1 x Optical Input / 1 x Coaxial Input (up to 192KHz/24bit)<br>1 x USB-DAC(USB-OTG) Input (up to 192KHz/32bit)<br>Input Impedance: 6Ω |
| High Level Outputs | 10 x High Level Outputs<br>8ch: 50W/4Ω/ch RMS, 80W/4Ω/ch Max.<br>2ch: 100W/4Ω/ch RMS, 150W/4Ω/ch Max.<br>1 x BLT outputs<br>200W/4Ω/ch RMS, 300W/4Ω/ch Max.<br>THD+N: <0.017% S/N: >100 dB |
| RCA Outputs | 12 x RCA Outputs<br>Voltage : 5.6Vrms<br>THD+N: <0.0017% S/N: >108 dB |
| DSP Outputs | 20 x DSP channels: 10 x high-level + 10 x RCA ( 2 RCA shared high-level/RCA.) |
| Dynamic Loudness Control | Separate DLC parameters for Analog/Digital/ Bluetooth input sources |
| SKYATOM Surround | 6-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms, Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AWRCP<br>Audio Codec: aptX/aptX HD/AAC/SBC |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Input Delay | High level input time delay adjustment: 0-10ms/0-340cm |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Frequency Response | 20Hz ~ 40KHz |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360° (step: 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel : 0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~0dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Rename | Speakers can be renamed individually for each channel |
| Controller | Mode Selection / volume control / Bass control |
| PC tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 296mm x 217mm x 43mm |
| Weight | 4.06kg |
| Operating temperature | -20˚C~70˚C |
| Storage temperature | -30˚C~85˚C |
| Maximum Humidity | -90%RH |

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AMP DSP

# DSP Amplifier - DSPA 810 Pro V2.0

High-quality 8-channel DSP amplifier. Featuring an 8-channel amplifier and 10-channel RCA output design, with 14-channel DSP outputs. It is suitable for 5.1 system three-way audio setups and comes equipped with OTG and premium Bluetooth functionality. With 4 × 65W/4Ω Max. + 4 × 80W/4Ω Max. power output, it meets the needs of entry-level car audio upgrades and offers a high cost-performance solution.





## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | ADAU1452 ADI DSP Chip<br>2 x AK5704 ADC-Chips (192KHz/32bit)<br>AK4438 + PCM1754 DAC-Chip (192KHz/24bit)<br>High temperature for high-reliability to 105˚<br>Celectrolytic capacitor |
| Inputs | 8 x High Level Inputs 12Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>1 x USB-DAC(USB-OTG) Input (up to 192KHz/32bit)<br>1 x Optical Input (up to 96KHz/24bit)<br>Input Impedance: 6Ω |
| High Level Outputs | 8 x High Level Outputs<br>4ch 25W/4Ω/ch RMS. + 4ch 50W/4Ω/ch RMS.<br>4ch 60W/4Ω/ch Max. + 4ch 80W/4Ω/ch RMS.<br>THD+N: <0.03% S/N: >100 dB |
| RCA Outputs | 10 x RCA Outputs<br>Voltage: 4Vrms<br>THD+N: <0.0017% S/N: >105 dB |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AWRCP<br>Audio Codec: aptX/aptX HD/AAC/SBC |
| Input Delay | High level input time delay adjustment: 0-10ms/0-340cm |
| Dynamic Loudness Control | Separate DLC parameters for Analog/Digital/ Bluetooth input sources |
| SKYATOM Surround | 6-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms, Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Frequency Response | 20Hz ~ 40KHz |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360° (step: 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel : 0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~0dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Rename | Speakers can be renamed individually for each channel |
| Controller | Mode Selection / volume control / Bass control |
| PC tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 217mm x 170mm x 43mm |
| Weight | 2.42kg |
| Operating temperature | -20˚C~70˚C |
| Storage temperature | -30˚C~85˚C |
| Maximum Humidity | -90%RH |

DSP AMP

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# DSP Amplifier - DSPA 810 SE V2.0

Positioned as an entry-level simple upgrade solution, it features 31-band EQ adjustment, 8×30W AB-class rated power output, standard Bluetooth 5.0, and mobile phone OTG functionality. It meets the basic needs of entry-level audio systems and stands out as a cost-effective choice among products of the same class.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | 2 x AK7735 DSP Chips<br>2 x AK7735 ADC Chip s<br>AK7735 + PCM1754 DAC Chip<br>High temperature for high-reliability to 105˚<br>Celectrolytic capacitor |
| Inputs | 8 x High Level Inputs 12Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>1 x USB-DAC(USB-OTG) Input (up to 192KHz/32bit)<br>Input Impedance: 6Ω |
| High Level Outputs | 8 x High Level Outputs<br>30W/4Ω/ch RMS. 65W/4Ω/ch Max.<br>THD+N: <0.03% S/N: >100 dB |
| RCA Outputs | 10 x RCA Outputs<br>Voltage: 4Vrms<br>THD+N: <0.0017% S/N: >105 dB |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX HD/aptX/AAC/SBC |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +10dB |
| Dynamic Loudness Control | Separate DLC parameters for Analog/ Bluetooth input sources |
| SKYATOM Surround | 2-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: 0~40ms<br>Surround Sound Effects: Surround sound field enhancement |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +10dB |
| Frequency Response | 20Hz~40KHz |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Arbitrary Phase Rotation from 0° to 360° (step: 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel:<br>0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~0dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Rename | Mode Selection / volume control / Bass control |
| Controller | Speakers can be renamed individually for each channel |
| PC tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 217mm x 170mm x 43mm |
| Weight | 2kg |
| Operating temperature | -20˚C~70˚C |
| Storage temperature | -30˚C~85˚C |
| Maximum Humidity | -90%RH |

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AMP DSP

# DSP Amplifier - DSPA 406 V2.0

Positioned as an entry-level simple upgrade solution, it features 31-band EQ adjustment, 4 × 30W AB-class rated power output, standard Bluetooth 5.0, and mobile phone OTG functionality. It delivers powerful sound performance, making it ideal for car owners seeking entry-level audio upgrades.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | AK7735 DSP Chip<br>AK7735 ADC- Chip<br>AK7735 + PCM1754 DAC Chip<br>High temperature for high-reliability to 105˚<br>Celectrolytic capacitor |
| Inputs | 4 x High Level Inputs 10Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>1 x USB-DAC(USB-OTG) Input (up to 192KHz/32bit)<br>Input Impedance: 6Ω |
| High Level Outputs | 4 x High Level Outputs<br>30W/4Ω/ch RMS.<br>65W/4Ω/ch Max.<br>THD+N: <0.03% S/N: >100 dB |
| RCA Outputs | 6 x RCA Outputs<br>Voltage: 4Vrms<br>THD+N: <0.0017% S/N: >105 dB |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX HD/aptX/AAC/SBC |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Input Delay | High level input time delay adjustment:<br>0-10ms/0-340cm |
| Dynamic Loudness Control | Separate DLC parameters for Analog/ Bluetooth input sources |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Frequency Response | 20Hz~40KHz |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360° (step: 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel :<br>0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~0dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Rename | Speakers can be renamed individually for each channel |
| Controller | Mode Selection / volume control / Bass control |
| PC tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 180mm x 129mm x 36mm |
| Weight | 1.08kg |
| Operating temperature | -20˚C~70˚C |
| Storage temperature | -30˚C~85˚C |
| Maximum Humidity | -90%RH |

DSP AMP

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# DSP Amplifier - DSPA206

Entry-level simple upgrade solution with 4×25W AB-class rated power output and Bluetooth 5.0. Perfect for basic sound system improvements.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | ADAU1701 DSP Chip<br>ADAU1701 & PCM1808 ADC Chip<br>ADAU1701 & PCM1754 DAC Chip<br>High temperature for high-reliability to 105˚<br>Celectrolytic capacitor |
| Inputs | 4 x High Level Inputs 10Vrms Max.<br>2 x RCA Inputs 2.3Vrms Max. |
| High Level Outputs | 4 x High Level Outputs<br>20W/4Ω/ch RMS.<br>50W/4Ω/ch Max. |
| RCA Outputs | 6 x RCA Outputs |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX/aptX HD/AAC/SBC |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: 6dB/Oct~12dB/Oct |
| Output Equalizer | 15-band EQ for A/B channels;<br>10-band EQ for C/D channels;<br>5-band EQ for E/F channels<br>Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Frequency Response | 20Hz~40KHz |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Independently adjustable per channel : 0°/180° |
| Output Delay | Independently adjustable per channel :<br>0~5ms/0~170cm |
| Output Volume | Independently adjustable per channel:-20dB~+5dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Rename | Speakers can be renamed individually for each channel |
| Controller | Mode Selection / volume control / Bass control |
| PC tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 180mm x 130mm x 41mm |
| Weight | 1.31kg |
| Operating temperature | -20˚C~70˚C |
| Storage temperature | -30˚C~85˚C |
| Maximum Humidity | -90%RH |

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DSP

# Stand -alone DSP - DSP16 ULTRA

Flagship pure-source DSP with ES9038Pro DAC chip and high-precision femtosecond clock. Features 0.005ms step delay and 16 RCA outputs, designed for audiophile-grade systems and demanding audio upgrades.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC / high level inputs |
| Hi-End components | 3 x ADAU1463 DSP Chips,192KHz Sampling Rate<br>2 x ES9038Pro DAC Chips (32bit/768KHz PCM)<br>2 x AK5558VN ADC Chips (32bit/768KHz PCM)<br>1 x Femtosecond Clock Generators<br>Hi-End Proprietary OpAmp<br>High Temperature for High Reliability to 105°C<br>electrolytics and WIMA film Caps |
| Inputs | 16 x High Level Inputs 16Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>1 x USB-DAC(USB-OTG) Input (up to192KHz/32bit)<br>1 x Optical Input/1 x Coaxial Input<br>(up to192KHz/24bit)<br>Input Impedance : 6Ω |
| Outputs | 16 x RCA Outputs 11.2Vp-p(4Vrms)/47KΩ |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX/aptX HD/AAC/SBC |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Input Delay | High level input time delay adjustment:<br>0~10ms/0~340cm, Step 0.005ms |
| Dynamic Loudness Control | Separate DLC parameters for Analog/Digital/<br>Bluetooth input sources |
| SKYATOM Surround | 6-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms,<br>Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |
| Frequency Response | 10Hz~80KHz(±1dB) |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>30-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360°(step 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel:<br>0~20ms/0~680cm, Step 0.005ms |
| Output Volume | Independently adjustable per channel:-20dB~+5dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Controller | Mode Selection / volume control / Bass control |
| PC tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 303mm x 231mm x 50mm |
| Weight | 7.32kg |
| Operating temperature | -20˚C~70˚C |
| Storage temperature | -30˚C~85˚C |
| Maximum Humidity | -90%RH |

DSP

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# Stand -alone DSP - DSP10

Entry-level pure-source DSP with 10 RCA outputs, offering high cost performance. Suitable for most mainstream vehicles, ideal for initial sound system upgrades.







## Technical Specifications

| | |
|---|---|
| Voltage | 11V-16V |
| Turn-On | ACC/ high level inputs |
| Hi-End components | ADAU1452 ADI DSP Chip<br>2 x PCM1840 ADC Chips<br>PCM1690 DAC Chip<br>MC33078 Opamp<br>High Temperature for High Reliability to 105°C electrolytics and WIMA film Caps |
| Inputs | 8 x High Level Inputs 12Vrms Max.<br>2 x RCA Inputs 3Vrms Max.<br>1 x Optical Input(up to 96KHz/24bit)<br>Input Impedance: 6Ω |
| Outputs | 10 x RCA Outputs 16Vp-p(5.6Vrms)/47KΩ |
| Bluetooth® Receiver | Bluetooth® 5.0<br>Profile: A2DP/AVRCP<br>Audio Codec: aptX HD/aptX/AAC/SBC |
| Input Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>5-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Input Delay | High level input time delay adjustment:<br>0~10ms/0~340cm |
| Dynamic Loudness Control | Separate DLC parameters for Analog/Digital/ Bluetooth input sources |
| SKYATOM Surround | 6-channel input with independent adjustment<br>Output volume gain: -20dB~+10dB<br>Phase Shift: Positive phase/inverted phase<br>Time Delay: Subwoofer delay range:0~10ms,<br>Other channel delay: 0~40ms<br>Surround Sound Effects: Front sound field extension, front sound field treble enhancement, center enhancement, center treble enhancement, surround sound field enhancement, bass enhancement, bass dive enhancement |
| Output Crossover | Independently adjustable per channel<br>Filter type: Butterworth / Linkwitz / Bessel<br>Filter frequency: 20Hz ~ 20KHz<br>Filter slope: -6dB/Oct~-48dB/Oct |
| Output Equalizer | Independently adjustable per channel<br>Filter type: PE/LS/HS/AP1&AP2<br>31-Band Parametrical Equalizer: 20Hz ~ 20KHz<br>Q: 0.5 to 15<br>Gain: -15dB to +15dB |
| Equalizer Control Mode | Relative/Absolute/No |
| Output Phase | Variable Phase Rotation from 0° to 360°(step 1°) |
| Output Polarity | Positive phase/Inverted phase |
| Output Delay | Independently adjustable per channel :<br>0~20ms/0~680cm |
| Output Volume | Independently adjustable per channel: -20dB~0dB<br>Master Volume: Mute/0 to 60 levels (-100dB to 0dB) |
| Rename | Speakers can be renamed individually for each channel |
| Controller | Mode Selection / volume control / Bass control |
| PC tuning | Microsoft™ Windows 7 or higher |
| Dimensions | 193mm x 146mm x 41mm |
| Weight | 1.8kg |
| Operating temperature | -20°C~70°C |
| Storage temperature | -30°C~85°C |
| Maximum Humidity | -90%RH |

## Goldhorn Speaker series - Celect TS1



1. Nominal Impedance: 4 Ohm
2. Sensitivity: 86 dB
3. Frequency Response: 500 Hz - 20 KHz
4. Input Power (RMS/Max.): 25 W / 35 W
5. Size: 70mm x 70mm x 25 mm
6. Color: Black / Silver
7. Cable Length: 0.8 m

## Goldhorn Speaker series - Celect C1



1. Nominal Impedance: 4 Ohm
2. Sensitivity: 89 dB
3. Frequency Response: 250Hz - 15KHz
4. Input Power (RMS/Max.): 15W / 30W
5. Size: 80mm x 76mm x 72 mm
6. Color: Black / Silver
7. Cable Length: 0.8 m

## Accessories - T3002



- Stylish Outlook
- IPS Display
  Synchronize multiple displays and control: factory head unit, panel control, phone
- Easy Plug & Play connection
- Folder Management

## Accessories - GD16




- Mode Selection/volume cotrol/bass control
- Easy Plug & Play connection
- Small size & Intelligent Control
- Dimensions: 63mm x 34mm x 15mm

## Accessories - M02




- Capacity: 450 F
- Internal Resistance: 0.20Ω
- Maximum discharge rate: 60
- Maximum Carrying Current: 120 AS
- Maximum instantaneous discharge current: 80 AS
- Discharge-Charge Cycles: 30,000 times or above
- Dimensions: 216mm x 109mm x 39 mm